Machinery Systems Design Structure Matrix Working Group

ONR-NAVSEA-OSD CREATE

3rd Ship Design Process Workshop

31Mar – 2Apr 2009

Machinery Systems DSM Project and Status - WHAT

- Continuation of work from 2nd Ship Design Workshop
- Tasked by SEA05Z and ONR
- Kick off Jan 2009 - 5 month duration
- Capture design process for machinery systems
  - Engage Tech Warrant holders/Subject Matter Experts.
  - Identify relevant design activities/inputs/outputs.
  - Create Design Structure Matrix for associated sub systems.
  - Identify critical path activity clusters and associated inputs/output constraints.
- Objective is to identify and minimize/eliminate bottlenecks and unnecessary iterations

Machinery Systems DSM Project and Status – HOW

- Conducted orientation seminars for Technical Warrant Holders and Subject Matter Experts
- Compiled "First Cut" design activities lists for selected machinery systems
- Conducted a series of sessions with individual Subject Matter Experts to describe the design process for representative machinery systems.
- Initial session inputs received and compiled in EXCEL spreadsheets
- Initial DSM's modeled in ADePT and LATTIX (LOOMEO on order)

Machinery Systems DSM Project and Status - NOW

Sub System	Tech Docs	Process Docs	Activity List	DSM Complete	DSM Analysis
Machinery Arrangement	●	●	●	●	O
Auxiliary – Fuel Oil	●	●	●	●	O
Electrical	●	O	●	O	O
Propulsion	●	O	●	O	O
HVAC	●	●	●	●	O
Compressed Air	●	O	●	O	O
Underway Replenish	●	O	●	O	O

O = incomplete task or no data received
● = in progress or partial data
● = near completion
✓ = complete

Sub System	Tech Docs	Process Docs	Activity List	DSM Complete	DSM Analysis
Machinery Arrangement	●	●	●	●	●
Auxiliary – Fuel Oil	●	●	●	●	O
Electrical	●	O	●	●	●
Propulsion	●	O	●	●	●
HVAC	●	●	●	●	O
Compressed Air	●	O	●	O	O
Underway Replenish	●	O	●	●	O